TO AVOID . .
NATIONAL . .
STARVATION

BY

CHARLES BATHURST, M.P.

With a Preface by

LORD CHARLES BERESFORD, M.P.

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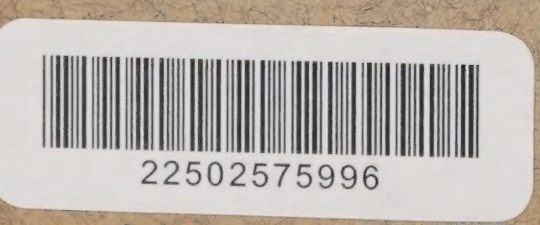
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'That land is Fatherland, which feeds us best."

"Whoever could make two ears of corn . . . to grow upon a spot of ground where only one grew before, would deserve better of mankind, and do more essential service to his country than the whole race of politicians put together."

—SWIFT.

"The best thing to do on earth is to cultivate it."

—VOLTAIRE.

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PREFACE

Mr. Charles Bathurst, in his admirable paper on the Food Supply of the British Isles, has clearly pointed out the vital danger which would accrue to the people in the event of a suddenly declared war.

The art of war is to strike the enemy in the weakest place. Beyond all question, Mr. Bathurst has clearly illustrated that our weakest place lies in the defenceless state of our trade routes. Our danger is starvation, and not invasion.

Mr. Bathurst calls attention to the fact that while, in the year 1845, the population of the United Kingdom was 26,800,000, 24,000,000 were fed with home-grown wheat; while only 4,500,000 out of a population of 45,000,000 are so fed at the present time.

Is it possible that the thinking people of this country have realised this fact?

The Mediterranean—a trade artery which supplies 60 per cent. of our foodstuffs—has been evacuated. Why? In order to provide adequate defence in Home Waters for the heart of the Empire in Home Waters. To efficiently defend the heart, the arteries are left undefended. Cutting the arteries would be as fatal as a stab in the heart.

Foreign nations are well aware that the interruption of our food supply would bring us on our knees. The people of this country ignore this palpable fact.

Members of the Cabinet have made speeches lately showing that they recognise a very grave state of danger to the Empire in the near future, but they have done nothing to meet those dangers.

It is impossible now to build vessels in time to meet the crisis which may fall upon us in the next two years; and if it were possible to build ships we could not provide men to man them. The Fleet is now short of 5,000 men, and 20,000 are necessary for future requirements.

Mr. Bathurst has pointed out how the difficulties connected with our inefficient food supply could be met now. He suggests that either—

1. National granaries should be instituted; or
2. Direct encouragement should be given to farmers to keep stocks of wheat on hand. Mr. Bathurst states that the sum required for the latter proposal would cost about half the price of a Dreadnought.

Either plan would prevent the appalling catastrophe brought about by the stoppage of our food supplies.

As I consider that the danger is even more serious than the speeches of the members of the Cabinet indicate, one or other of the means suggested should be undertaken immediately. In addition to this, selected ships of the mercantile marine on the different trade routes should be armed in order that they may be able to defend themselves from the only attack they are likely to sustain, *i.e.*, from armed merchant ships of an enemy.

At the last Hague Conference, foreign countries expressed their intention of arming their merchant ships in war time. The British Government raised a protest, but took no steps to enforce it.

The question of adequate supply of food for our people in war time is one that should be immediately faced. Delay may be fatal. Delay may bring about events which would entail the loss of the Empire.

CHARLES BERESFORD,
Admiral.

September, 1912.

TO AVOID NATIONAL STARVATION

THE topic of the day is the alarm, now frankly expressed by the Government, at the steady increase in the naval strength of Germany and the absolute necessity for even larger expenditure upon our own Navy if we mean to maintain our supremacy among the nations of the world and the integrity of our world-wide Empire. Experts upon national defence have always urged the necessity of the maintenance by the United Kingdom of the "two-power standard"—that is, a fleet which is at least equivalent in ships and fighting efficiency to those of any other two countries in the world. This standard has, until recently, been maintained for more than a generation without any serious drain upon our national resources and without challenge on the part of other nations. Germany has, however, altered all this, and the question which serious-minded politicians are now beginning to discuss is the possibility of our maintaining, not a "two-power" standard, but a "one-power" standard in competition with Germany. With a rapidity, determination, and lavish expenditure quite unparalleled in the world's history, our great commercial rival has, for the past fourteen years, been engaged upon a vast scheme of ship-building which has already placed her second among

the world's maritime powers, and now seriously threatens our own primacy.

When the programme provided for in her last Navy Law is completed, she will possess 41 battleships, 20 battle cruisers, 40 small cruisers, and an ample supply of torpedo-boat destroyers and other necessary auxiliaries. Her fleet in the North Sea will then be stronger than the whole of the British fleet (scattered over the world) was only twelve years ago, and all her ships will be of modern construction, equipped with the most up-to-date and effective artillery. She will have doubled her expenditure on naval armaments since 1900, and quadrupled it since 1898.

Why, we may ask, has she incurred this huge expenditure on the engines of war, so unsettling to the civilised world, and especially to Great Britain? Apart from the natural ambition of a great, wealthy and prosperous nation to improve her position and prestige among the nations of the world, and more effectively to buttress her diplomacy, the reason is to be found in the necessity, or at least the hitherto unsatisfied desire, for territorial expansion—that is to say, for the possession of large tracts of country outside Europe and under German control as an outlet for her surplus population. This can best be secured at the expense of the nation which owns one quarter of the surface of the globe, and has, since the days of Sir Walter Raleigh and Queen Elizabeth, shown a genius for colonisation and the control of native peoples possessed by no other.

No one doubts that the immense shipbuilding programme of Germany is directed against Great Britain and against Great Britain alone; and, there-

fore, cost what it may, in the truest interests of peace it is incumbent upon us to keep pace in naval strength and equipment with our formidable rival. Our Overseas Dominions are now rallying to the aid of the Mother Country, and the offers successively by New Zealand, Australia, and Canada of Dreadnoughts (costing upwards of two million pounds each) out of their own resources to ease the almost intolerable financial strain which such competition in naval armaments involves, are evidences of a loyalty and patriotism which must gladden the hearts and evoke the enthusiasm of all Imperialists.

Assuming (as we must assume) that war with Great Britain is the ultimate object of German policy, how, it may be asked, can it be achieved with any prospect of its successful issue? No competent authority either in England or Germany admits the likelihood of the successful invasion by physical force of Great Britain. The danger to this country is not invasion but starvation.* Our greatest national weakness, as Germany well knows, is the fact that we are so little self-contained in the matter of our food supply. The total food bill of the Nation amounts to £450,000,000, of which about £200,000,000 represents foodstuffs grown in the United Kingdom. But these foodstuffs consist largely of luxuries and products of low nutritive value. The chief necessary of life is bread, and the main staple of our people's

*As lately as September 7th, 1912, Admiral Breusing, the eminent German authority upon naval strategy, speaking at Erfurt at the Annual Congress of the Pan-German League, declared that "in case of war with Great Britain the interception of the British food supplies must be one of the first objects of Germany."

food is the grain from which it is made, which in this country is almost exclusively wheat. Four-fifths of this wheat comes to us across the seas, largely from foreign countries. The interruption of this large oversea supply, even if it did not bring about actual starvation, would result in an enormous increase in the price of food, which would cause wide-spread destitution,* and might easily, through irresistible political pressure,† and possibly extensive riots on the part of the working population, result in submission to our enemy and the loss of our Colonies as the price of their success without a shot being fired. In this connection the following quotation from the Minority Report of the Royal Commission sounds a note of warning.

> "There is a school, we know, which holds the view that, once we are defeated on the sea, the continuance of hostilities for us would be a hopeless and a useless struggle; that the loss of our Empire would follow; and our only resource would be to sue for peace on the best terms that we could obtain. But we refuse to accept, and, indeed, we emphatically reject, the doctrine that with a defeat or defeats of our Fleet the days of the Empire would be necessarily numbered.
>
> "Our faith in the genius, the resource, and

* It was estimated by expert witnesses before the Royal Commission on the Supply of Food and Raw Material in Time of War that any considerable rise in the price of food would make it impossible for the seven millions of workpeople whose earnings do not exceed 23s. a week to support themselves; and that to this seven millions must be added the large number of workers who would lose employment as the first and necessary result of the disturbance in the labour market due to a war between England and any one or more of the great Powers.

† See Appendix I. at page 26.

the courage of the race forbids us to accept it, for even in the face of disasters so grave as those which are supposed, we believe in their ability to recover the position, *unless we were confronted with a starving or semi-starving population in these Islands.*

"That would be a situation which might indeed become, and speedily, beyond control; no one would question their patriotism, their courage, or their endurance; but with a people in constant hunger it cannot be denied that a position of great danger would arise, and if it were continued a disaster to the country could neither be escaped nor long postponed.

"Naval reverses have not been unknown in the past; and it would be madness to ignore the possibility that they might occur again. In that case, all that we have said upon the danger of a rise in prices would be intensified in great degree, and it is against this danger, with all its embarrassments and difficulties for a Government at a time of crisis and excitement, that we desire to see provision made, and before it is too late."

Such interruption of our food supply would be rendered ten times more probable if the Declaration of London were ratified. Under its provisions all foodstuffs in neutral vessels would be liable to seizure or destruction as contraband of war if consigned to any British port which may be deemed to be a base of belligerent operations—a description which would probably apply to every port of any importance in the Kingdom. It is to guard what are called our "trade routes"—the ocean paths by which the raw materials of our industries and the

bulk of our more essential food reach our shores—that it is necessary for us to construct and maintain so large a fleet of costly cruisers; it is largely to protect us and our oversea Dominions against the possible results of this national defect that still more costly Dreadnoughts have to be provided.

The risk of national starvation is aggravated by the possibility of a real shortage in the world's supply of wheat (such as occurred in 1897) being followed by an attempt by Germany, or by financiers operating at the instigation of Germany, simultaneously with the outbreak of war, to "corner" our supplies of wheat in the Russian, American, Argentine, and other markets. Even although eventually unsuccessful, a corner in wheat would force up prices for a time to a level which would place the "staff of life" beyond the reach of the poorest classes in the country.

In the year 1845 the population of the United Kingdom was 26,800,000, of which no fewer than 24,000,000 persons were fed with home-grown wheat. The population is now 45,000,000 and we are feeding 4,500,000 only, a decline of over 80 per cent. in sixty-seven years.

Of the total amount of wheat consumed in this country, the proportion which is imported from abroad is steadily increasing; thus in 1890 about 20 million quarters were imported, in 1910 about 28 million quarters.* This represents an increase of

* Of this total about 25 per cent. came from Russia, and 45 per cent. from British possessions. It is satisfactory to note that in 1911 the imports of wheat (including flour) from British possessions were almost equivalent to those from foreign countries. See Appendix II. at page 27.

nearly 50 per cent. in twenty years, and an increase of 350 per cent. in forty years. The number of acres under wheat in the United Kingdom was in 1871 3,700,000, in 1911 about 1,800,000—a reduction of more than a half. During the last twenty years the British area under arable cultivation has shrunk by no less than a million and a half acres, or by the total area now under wheat. This means not merely that land has been, and is continuously being, laid down to grass or tumbling down to couch and other weeds, but also that the population of the villages has been depleted. Cottages have fallen into disrepair with little or no inducement to their owners to repair them, and the physical strength of the nation has degenerated owing to the impossibility, with so small a proportion of our workpeople (less than a million*) employed upon the land, of making good the human wastage of the towns and mining districts. The reason for this loss, both in home-grown wheat and in our sturdy country population, is that for the last thirty years there has been no certain profit in the production at home of the chief food of our people. The removal from British agriculture of Government protection, the cultivation of vast areas of virgin soil on the American continent and elsewhere, the increasing rapidity and cheapness of trans-oceanic carriage (which has entirely destroyed what Cobden called "the natural protection enjoyed by the farmers of this country"), and the serious burdens of Imperial and local taxation short-sightedly imposed upon

* According to the Census of 1911, the number of persons "engaged" in Agricultural Industry (in its widest sense) is about a million and a half, but of this number 500,000 are farmers and other persons "in occupation" of cultivable land.

agricultural land—the raw material of our most important industry—have combined to produce this result.

It is the desire of all social reformers to see an increase in the wage of the agricultural labourer. Not only is it very low, especially in East Anglia and the South of England, but, owing to the rapid increase in the cost of living, its purchasing power is considerably less than it was fifteen years ago. Moreover, its low level tends to depress wages in other industries, particularly where there is no effective organisation of labour. Suggestions have been repeatedly made by well-intentioned persons that the agricultural labourer's remuneration should be improved by Act of Parliament or other artificial means. The danger of such uneconomic remedies is that they may tend to the further reduction of employment upon the land, and involve the grave risk of throwing large areas of it out of cultivation altogether. The only true remedy can be found in such alleviation of national burdens, and such Government encouragement of rural industry, as will make agriculture a profitable occupation, especially in the direction of wheat growing, in which it is in the national interest that it should prosper. Given a measure of reasonable prosperity to the agricultural industry, the labourer can claim, and will receive (whether with or without Government assistance), such reward as his patriotic labours justify.

Although the more extensive use of machinery and the greater application of science to agricultural processes, especially in the use of artificial fertilisers,

have rendered it possible to reduce the cost and intensify the process of wheat cultivation, it cannot be said that, taking the country generally, there is a certain margin of profit left to the farmer when the market price of wheat falls below 35s. per quarter; and in the case of the small holder, who is unable, even with the aid of co-operative methods, to effect the same economies in this kind of cultivation as the larger producer, the "datum level" would have to be put higher still. It is interesting and significant to note that only once during the last twenty years (in 1909) has the average price of wheat exceeded the above figure, and that in 1894 it fell as low as 22s. 10d.

Grass, or the many worthless weeds which look like grass, constitute England's greatest eyesore, the most obvious and scathing condemnation of short-sighted statesmanship in a country with a teeming industrial population. The already large area of pasture is being further extended owing to the profitable character of the milk-selling industry, and the erroneous impression prevalent amongst English farmers that dairying is best conducted upon grass farms, regardless of the example set by Denmark, our chief rival in the dairying industry, where 90 per cent. of the land is under arable cultivation, the output of milk and milk products is far greater per acre, and the land exhaustion which results from selling milk off a farm without adequate return through the feeding of cattle with concentrated foods, or the application of artificial fertilisers, is entirely unknown. There, the dairying industry is carried on concurrently with that of wheat grow-

ing and market gardening; here, such industries are deemed to be mutually exclusive. So slight is the inducement to our farmers to cultivate wheat, that of the existing arable area (small though it is) in the United Kingdom only 9 per cent. is under that crop, and even in England itself only 15 per cent. Had it not been for the demand for straw (for litter and other purposes), and the realised advantage of including wheat in a rotation of other farm crops more suitable for the maintenance and fattening of live stock, the decline in the production of our most important cereal would have been even greater.

It may be suggested that, as the population of the world increases, and, as the result of greater general prosperity, wheat becomes more largely (as in the case of the United States) the staple food of the working classes, a lessened supply, coupled with a greater demand, will appreciate the value of wheat, and so afford greater inducement to British farmers to grow it. This is no doubt true of meat, the world's production of which does not, and is not likely to, increase in the same ratio as the world's population. Wheat cultivation, however, is not only still possible upon an immense acreage of presently undeveloped land, and capable, with the advance of science, of almost indefinite extension to latitudes hitherto unassociated with the raising of cereals, but the yield per acre, which in most countries is very small, can, and will be, largely increased.

It is often said nowadays that English wheats are not acceptable to millers, and, except when blended with foreign and colonial wheats, do not make good

bread of the kind which the British consumer demands. It is true that the best Manitoban wheat fetches in our markets about 5s. per quarter more than a good home-grown wheat. The relatively low value of the latter is due to two main causes: one is the large proportion of water which it contains, an average through the year of about 17 per cent. compared with about 9 per cent. in the case of Indian and 12 per cent. in that of Manitoban wheat; the other, and the more important, is its low percentage of gluten, or nitrogenous (flesh-forming) matter, which gives the flour the "strength" which results in the production of big, shapely, well-aerated loaves. These defects are due to the fact that British farmers have for the last thirty years been growing nondescript wheats of poor quality without sufficient consideration of what the consuming public, through the millers, are now demanding. That these defects can be entirely cured is clearly demonstrated by the invaluable work conducted during the last eleven years by the Department of Agriculture at Cambridge University in the successful production (by careful breeding and selection and the application of Mendelian principles) of varieties of wheat of fixed type which are not only superior in quality for all baking purposes to any known varieties of English wheat, and entirely free from disease, but are also capable, under differing conditions of soil and climate, of yielding from sixty to seventy bushels of grain per acre (more than twice the recorded British average) as well as an exceptional weight of straw. Such wheats as those recently produced at Cambridge are comparable in quality, and will fetch in the English

market as good value, as the best Manitoban or Indian varieties.

It is well to remember how the great Bismarck, the founder of German commercial prosperity, contemplated conditions under which it would be impossible for German agriculturists to grow wheat at a profit. Speaking in 1879 he said: "Low corn prices are an economic evil. The position of the farmer depends upon the revenue he obtains from the sale of his produce, and the better his position the more prosperous is the nation's economic life as a whole. Farmers have a right to demand that the home markets shall be saved to them. If the time should come when corn cannot be profitably cultivated, not only agriculture but the Prussian State and the German Empire itself will go to ruin."

Six years after, when the German policy of free imports had been reversed, he said: "There is a limit below which the price of corn cannot fall without the ruin of our entire economic life. That point must not be reached, for when it is it will be too late. Decay may be deferred by the use of the capital we may have laid up, but we create an intolerable situation. This is as clear as that two and two make four. *This is the position of English agriculturists to-day:* they have been feeding the nation mainly out of their capital for years past, and unless this downward course is promptly stopped it means national ruin and anarchy as the result."

As the result of Bismarck's policy and advice, Germany, with a much larger population, is almost

self-contained in her food supply, having always realised the importance of protecting and fostering home production, both of sturdy citizens and their food. Great Britain, on the other hand, has seldom in stock in the country at any one time* more than six weeks' supply of wheat, and on certain occasions during the last twenty years this has fallen to a fortnight's supply only—a position fraught with unspeakable risk to a population of 45 millions dependent so largely on imported food.

There is no doubt that the Intelligence Department of the German Government is well acquainted with the occasions upon which the stocks of wheat in this country are at their lowest, and it is one of these occasions that they are most likely to select, when their already great Navy approximates more nearly in numbers to our own, to strike a blow at our food supply in the Atlantic or the Mediterranean by sinking the liners and the tramps that are carrying it from Argentina, Canada, or the United States across the former, or from Russia or India along the latter.

Had not the policy of Reciprocity between the United States and Canada been frustrated as the result of the last Canadian elections, there is but little doubt that the increasing supplies of Canadian wheat would have found a market in the United States rather than in the Mother Country. Nor is this danger altogether averted, for in the absence of a preference from the United Kingdom the

* See Report of Royal Commission on Supply of Food and Raw Material in Time of War, 1905, at page 15.

inducement to farmers in Alberta and Saskatchewan, largely peopled by immigrants from the United States, to deflect their increasing output to their kinsmen in the south is very great and calculated to affect future Canadian policy. Moreover, unless the recent decision of the American Government, in defiance of the Hay-Pauncefote Treaty of 1900, to give to American vessels preferential terms of transit along the Panama Canal is reversed, there is little doubt that a large proportion of the wheat which has hitherto come in British vessels to European ports from the Western sea-board of the American Continent will in future be carried beneath the Stars and Stripes, and be absorbed by the United States, which, within the next ten years, will be unable to feed from within its growing population.

In any case, absolute dependence upon cheap Canadian wheat and the consequent entire cessation of its cultivation in Great Britain (as advocated by some well-meaning Imperialists) would tend to increase rather than mitigate the national peril in time of war, which is inherent in a sea-borne supply, whatever may be its source.

Surely, if it is wise statesmanship to spend 45 millions* annually on the maintenance of our Fleet, it is the height of unwisdom to spend no public money at all on the encouragement of wheat growing in order to render the country more self-supporting, and therefore less open to so appalling a catastrophe as national surrender impelled by the prospect of

* The Navy Estimates (including Supplementary Estimates) for the current year amount to £45,075,400.

certain starvation. By contrast with such a policy, certain extreme and woefully short-sighted politicians are seeking to popularise a wild scheme of fanciful taxation of the capital value of land (wholly inapplicable to agricultural land in an old country), which, if carried into effect, would throw still greater burdens upon an industry the neglect of which constitutes to-day England's greatest peril.

The question whether the State encouragement of wheat growing might indirectly benefit some of the owners of agricultural land should, in the face of so serious an emergency, be ruled out of account as a matter of trifling moment when weighed against the vital consideration of national security. It may, however, be incidentally recalled that whereas within twenty years the national income derived from other kinds of property, industries, occupations, and professions has more than doubled, that from agricultural land has in thirty years decreased by 17 millions—a capital loss of over 400 millions.

It is very doubtful whether landowners' rents would be increased by securing to tenant farmers a bare margin of profit upon wheat cultivation, and so inducing them to substitute it partly for other forms of husbandry which now appear to be more profitable, or at any rate less hazardous. But if such an eventuality were apprehended, it could be minimised by confining the proposed bonus to those who farmed their own land, or granted long leases at a fixed rent to their tenants, or alternatively entered into an undertaking not to raise their rents

as a condition precedent to the receipt by their tenants of the Government bonus. In any case it should be the object of wise and far-sighted statesmen to differentiate, by taxation or otherwise, between good and bad landowners, between those who, in the best interests of the nation, promote the agricultural development of their estates, and those who by excessive game preservation, or by unduly onerous tenancy agreements, restrict its full employment for the production of the people's food. As the Report (lately issued) of the Departmental Committee on the Position of Sitting Tenants on the Sale of Estates clearly indicates, the policy of public vituperation and further threatened taxation of agricultural landowners seriously unsettles the industry of agriculture and all who are engaged in it.

Moreover, the aggregate burden of existing rates and taxes (of various denominations) upon agricultural land is heavier in Great Britain than in any other civilised country in the world. Its cumulative effect is to restrict agricultural enterprise and development, and to aggravate the inequality of competition with the land products of other countries.

Although in the United Kingdom very large quantities of meat, fish, eggs, butter, and vegetables are now available at prices which enable all but the poorest to buy them freely, the consumption of wheat and wheaten products per head of population has for the last generation been progressively increasing. Thus the average annual consumption per head, which was 342 lbs. in 1880, was about

360 lbs. in 1911, which represents in the aggregate about 35 million quarters a year, or 650,000 quarters per week. If the present feeling of insecurity as to the financial results of wheat growing were removed, and capital were in consequence more confidently embarked in this form of agricultural industry, 28 million quarters (or four-fifths of the above amount) might be, and without any doubt 21 million quarters (or three-fifths) *could* be grown in this country. The latter amount, if retained in the country, would represent 7 months' supply for our entire population. The task will be rendered easier by the results of the wheat-breeding experiments and Mendelian research of the Agricultural Department of Cambridge University, to which reference has already been made.

The above feeling of insecurity is accentuated by a bad harvest (such as in most districts is that of 1912), which always results in a considerable reduction in the area sown with wheat during the following autumn and spring, thus intensifying the national danger by increasing our dependence upon outside supplies.

To ensure that a considerable proportion of the home supply is always available for national needs in a national emergency, either Government granaries should be established, or direct encouragement should be given by Government to those producers who undertook to keep their wheat in stack and available for national use for a period of at least six months after harvest; or, if thought desirable, both these policies could be adopted concurrently. There is no better "granary" than the farmer's stackyard.

Let the difference between 35s.* per quarter and the average market price (if less than this sum) be paid as a bonus to every producer of sound wheat of good baking quality in the kingdom. The supply of unsold home-grown wheat, which is highest in September shortly after harvest, steadily decreases during the successive months, the rate being accelerated as from the beginning of February until August, when the home-grown crop is practically exhausted. To obviate this tendency, an additional bonus of 1s. per quarter should be given to farmers in respect of their wheat of good quality still in stack in their yards on and after the 1st February, 1s. 6d. for that so retained on and after the 1st March, 2s. in respect of that available during April and May, 2s. 6d. during June and July, and 3s. during August. The latter is in normal seasons the month during which the risk is greatest, especially in the event of the world's chief markets being cornered.

The advantage of such a system over the institution of national granaries† is that it would avoid the great expense which, apart from the outlay upon the reserve supply itself, the erection of warehouses

* The official average price for the cereal season, 1911-12 (lately published), is exactly 35s.

† On this subject the Royal Commission reported as follows:—"As regards the schemes which involve the Government in the actual purchase and sale of foodstuffs, we think that the objections to such a policy are conclusive. The Government would be exposed to serious losses in constantly purchasing and selling grain; much disturbance would inevitably be caused to the grain trade; and, in the event of war, the difficulties attendant on a satisfactory distribution of the stores held, coupled with the fact that the very existence of such stores would tend to discourage the enterprise of the private importer, appear to us to be insuperable."

would involve, as well as the annual expense of wear and tear and the insurance of buildings, not to mention interest on the capital expended. Moreover, there is always the risk of a variation in the condition of the stored grain, and the necessity of selling such grain at intervals and replacing it by fresh grain would involve the Government's being engaged in the intricate and risky business of dealing in wheat. Such additional bonus would afford some compensation to farmers for loss of interest as well as loss by rats and other vermin, although the latter can be minimised by standing the stacks upon stone or iron staddles instead of upon the ground. One additional advantage of storage in stack rather than in public granaries would be that, in the event of war, there would be a supply fairly evenly distributed throughout the country to meet the needs of the various local centres of population instead of being accumulated at the ports, with the possibility either of large quantities of grain falling into the hands of an enemy in temporary occupation of one of such ports, or of the interruption of its railway transit to inland centres, or of its largely enhanced price owing to increased cost of freightage. Another advantage would be the probable revival of the milling industry all over Great Britain instead of its concentration (so far as it now exists) at the large ports. Such a revival, besides giving good employment to our surplus rural population, would render sharps, pollards, bran and other milling offals plentiful once more. The present system has resulted not merely in the free admission of flour (without the wheat offals) from other countries, but

also in the carriage to other countries from the mills at our ports of their output of such offals, with the result that they are now so scarce and consequently expensive in our own villages that many poor farm labourers have been compelled, during the last few years, to give up keeping pigs—an occupation which has often in the past, in bad times, kept our thrifty villagers out of the workhouse. To meet the eventuality of an abnormal shortage of the home crop, owing to an exceptionally bad harvest (such as seems probable this autumn), it probably would be the wisest course to combine both the above methods of storing wheat.

A British Dreadnought costs the country £2,000,000, and only a limited amount of national security is obtained by its expenditure. On the basis of the average prices of wheat during the past seven years, the above bonus would have cost the country annually about £1,000,000, or one-half of the above sum, and have afforded infinitely greater security. Under a Tariff-protected scheme, the duties levied on imported foreign wheat might be applied in paying the bonus on that produced at home.* In

* In Appendix III. (at page 28) will be found two Tables, for the compilation of which the writer is indebted to Mr. A. H. H. Matthews, Secretary of the Central Chamber of Agriculture. Table I. shows for the last five years the production of wheat in the United Kingdom; the quantity imported; the amount that a 2s. duty on all imported wheat would raise; the bonus which this revenue could pay on the home crop; the average annual price of wheat in the United Kingdom; and the amount needed to make up the difference between the annual average market price of wheat and 35s. per quarter.

Table II. shows the proportion of imports from (*a*) foreign countries and (*b*) British Possessions; the revenue arising from a 2s. duty on foreign and 1s. duty on "Colonial" supply; and the total revenue arising from such duties.

any case a bonus would have the effect of slightly lowering the cost of bread to our working population, would create greater and more profitable employment in our country districts, and give a security to those engaged in the other great industries of the country which, with the ever-present risk of hostile interference with their food supply, they cannot now enjoy. Moreover, it might result in checking the present competition on the part of Germany in naval armaments (owing to her realisation that it is likely to prove futile) and so release our taxpayers of all classes from the grievous burden of war taxes in time of peace. Well may all patriots unite in exclaiming now, as of yore, "God speed the plough."

CHARLES BATHURST.

September, 1912.

APPENDIX I.

Summary of Conclusions of Minority Report of the ROYAL COMMISSION on Supply of Food and Raw Material in Time of War.

1. That it seems to us impossible to over-estimate the importance of the subject which has been entrusted to us.

2. That the position as regards our food supply in time of war is of comparatively recent growth; that there is no precedent in the past for the circumstances of to-day, and there is little, if anything, to be learnt in this respect from the history of wars in times gone by.

3. That the consumption of bread is immensely greater than that of any other kind of food in the United Kingdom, especially among the poorer classes, and that at certain periods of the year, between the end of June and the following harvest, it would not be safe to count upon a supply of wheat and flour within the United Kingdom amounting to much more than $5\frac{1}{2}$ weeks' supply.

4. That in the event of war between the United Kingdom and one or more of the Great Powers, the rise in the price of bread is certain to be great, and very possibly immense; and for how long a period it may continue no one with any accuracy can foretell.

5. That the suffering in consequence among the poor, and especially if the rise was much prolonged, would lead to the danger of pressure being placed upon the Government, and add to their embarrassment at moments of great crisis.

6. That such a rise, in greater or in less degree, must be expected as inevitable in such a war, in spite of any protection to our food supplies that the Navy could afford, and that, in the terms of the reference to this Commission, it is "in addition to the maintenance of a strong fleet" that "measures" should be taken "by which such supplies can be better secured and violent fluctuations avoided."

7. That the remedy which appears to us to be the best of the many suggestions which we have received, and which promises to be effective, should be sought in the recommendations we have made in paragraphs 96-7-8 of this Supplementary Report.

8. That the cost of their adoption would be comparatively trifling, and would not add more than $\frac{1}{4}$ per cent. to what is annually spent at present on the National Defences of the Country.

APPENDIX II.

TOTAL QUANTITIES of WHEAT (GRAIN AND FLOUR, *in equivalent Weight of GRAIN*) IMPORTED into the UNITED KINGDOM from EACH COUNTRY, 1907 to 1911.

COUNTRIES from which Consigned.	1907.	1908.	1909.	1910.	1911.
FOREIGN COUNTRIES:—	*Cwts.*	*Cwts.*	*Cwts.*	*Cwts.*	*Cwts.*
ALGERIA	—	—	—	—	416
ARGENTINA	21,969,211	31,848,497	20,156,411	15,272,633	14,870,822
AUSTRIA-HUNGARY	597,197	347,645	149,581	207,909	147,292
BELGIUM	181,047	87,739	178,239	90,625	50,528
BRAZIL	31,000	972	—	—	4,306
BULGARIA	418,700	101,400	13,889	146,700	63,800
CANARY ISLANDS	—	—	—	139	—
CHILE	85,100	2,213,964	1,670,616	633,500	112,700
CHINA	—		3,500	10,100	—
DENMARK	200	—	—	8,895	500
EAST AFRICA, PORTUGUESE	—	—	—	—	1,389
EGYPT	694	—	—	139	4,606
FRANCE	1,004,980	499,405	743,411	611,783	635,859
GERMANY	555,156	628,097	1,179,006	914,628	443,001
GREECE	—	—	—	41,250	18,958
ITALY	300,164	37,778	81,934	149,306	181,489
JAPAN	—	—	—	600	4,168
MOROCCO	—	—	1,700	—	700
NETHERLANDS	67,375	56,656	115,333	82,761	47,361
NORWAY	—	69	28	972	139
PERSIA	191,500	112,400	—	70,900	416,800
PORTUGAL	—	200	50	—	—
ROUMANIA	2,546,984	1,284,444	565,672	1,092,117	2,065,355
RUSSIA	11,433,683	5,150,721	17,858,828	28,947,646	18,113,639
SPAIN	—	—	21,456	—	—
SWEDEN	100	14	—	—	200
TRIPOLI	—	—	—	—	200
TURKEY	458,583	348,100	51,383	135,411	416,022
UNITED STATES OF AMERICA	33,462,842	39,600,621	25,127,726	18,065,261	20,045,355
URUGUAY	297,100	110,600	45,272	7,100	—
FOREIGN COUNTRIES:— TOTAL	73,601,625	82,429,322	67,964,035	66,490,375	57,645,605
BRITISH POSSESSIONS:—					
AUSTRALIA	8,506,700	5,838,061	10,423,711	13,683,889	14,529,331
CANADA	15,207,194	17,920,476	19,476,023	20,315,451	18,913,656
CHANNEL ISLANDS	—	—	—	555	694
CYPRUS	36,200	6,300	—	—	—
EAST INDIES, BRITISH	18,280,989	2,950,733	14,639,034	17,933,544	20,227,351
MALTA AND GOZO	—	—	—	139	—
NATAL	556	—	—	—	—
NEW ZEALAND	3,300	—	702,372	630,600	730,500
WEST INDIES, BRITISH	—	—	—	2,100	—
BRITISH POSSESSIONS— TOTAL	42,034,939	26,715,570	45,241,140	52,566,278	54,401,532
TOTAL	115,636,564	109,144,892	113,205,175	119,056,653	112,047,137

APPENDIX III.

TABLE I.

Year.	Grown in United Kingdom.	Imported.	A 2s. duty on imports raises	This gives a bonus on home-grown crop of	Average price per quarter for year.	Amount needed to make up difference between 35s. and average price.
	Quarters.	*Quarters.*	£	*s. d.*	*s. d.*	£
1907	7,066,399	27,081,864	2,708,186	7 8	30 7	1,560,408
1908	6,741,180	25,467,061	2,546,714	7 6½	32 0	1,011,150
1909	7,899,587	26,414,540	2,641,454	6 8¼	36 11	—
1910	7,074,179	27,779,885	2,777,988	7 10	31 8	1,179,027
1911	8,039,182	26,144,331	2,614,433	6 6	31 8	1,339,863

TABLE II.

Year.	Foreign Importation.	2s. duty on this raises	Imported from British Possessions.	1s. duty on this raises	Total duty raised.
	Quarters.	£	*Quarters.*	£	£
1907	17,100,000	1,710,000	9,800,000	490,000	2,200,000
1908	19,200,000	1,920,000	6,200,000	310,000	2,230,000
1909	15,800,000	1,580,000	10,500,000	525,000	2,105,000
1910	15,400,000	1,540,000	12,200,000	610,000	2,150,000
1911	13,400,000	1,340,000	12,693,000	634,650	1,974,650

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